

# CONGESTION MANAGEMENT

TRAFFIC CONGESTION IS A COMMON RESULT OF GROWTH. AS THE POPULATION OF AN AREA INCREASES SO DOES THE DEMAND FOR HIGHWAY TRAVEL. CONSTRUCTION OF NEW HIGHWAY CAPACITY IS NOT KEEPING PACE. ACCORDING TO THE FEDERAL HIGHWAY ADMINISTRATION BETWEEN 1980 AND 1999 ROUTE MILES OF HIGHWAYS INCREASED 1.5 PERCENT WHILE VEHICLE MILES OF TRAVEL INCREASED 76 PERCENT. IT IS UNLIKELY THAT HIGHWAY CONSTRUCTION WILL EVER CATCH UP DUE TO FUNDING AND LAND USE LIMITATIONS. THEREFORE, FEDERAL, STATE, AND LOCAL TRANSPORTATION OFFICIALS ARE TURNING TO CONGESTION MANAGEMENT TOOLS TO IMPROVE THE FLOW OF TRAFFIC. THESE TOOLS INCLUDE HIGH OCCUPANCY VEHICLE (HOV) LANES, RAMP METERING, INTELLIGENT TRANSPORTATION SYSTEMS AND HIGHWAY INFORMATION SYSTEMS.



## **HIGH OCCUPANCY VEHICLE (HOV) LANES**

HIGH OCCUPANCY VEHICLE (HOV) LANES, COMMONLY CALLED CARPOOL LANES, ARE RESERVED FOR PEOPLE WHO SHARE THE RIDE IN CARPOOLS, VANPOOLS AND/OR BUSES OR DRIVE A MOTORCYCLE. THESE LANES ARE MARKED WITH A DIAMOND SYMBOL AND HOV SIGNS. THE PRIMARY PURPOSE OF AN HOV LANE IS TO INCREASE THE TOTAL NUMBER OF PEOPLE MOVED THROUGH A CONGESTED CORRIDOR BY OFFERING TWO KINDS OF TRAVEL INCENTIVES: A SUBSTANTIAL SAVINGS IN TRAVEL TIME, ALONG WITH A RELIABLE AND PREDICTABLE TRAVEL TIME. BECAUSE HOV LANES CARRY VEHICLES WITH A HIGHER NUMBER OF OCCUPANTS, THEY MOVE SIGNIFICANTLY MORE PEOPLE DURING CONGESTED PERIODS. SEVERAL TYPES OF HOV FACILITIES ARE FOUND IN THE UNITED STATES INCLUDING:

- HOV LANES WHICH ARE TOLL-FREE AND RESERVED FOR CARPOOLS, MASS TRANSIT AND EMERGENCY VEHICLES AT ALL TIMES
- HOV LANES THAT ARE OPEN TO SINGLE OCCUPANCY VEHICLES DURING NON-PEAK TRAFFIC TIMES
- HOV LANES THAT CHARGE A TOLL BASED ON THE NUMBER OF OCCUPANTS IN THE VEHICLE



## **RAMP METERING**

RAMP METERING IS A COST-EFFECTIVE WAY TO IMPROVE TRAFFIC FLOW ON HIGHWAYS. A MODIFIED TRAFFIC SIGNAL IS PLACED AT THE END OF THE RAMP. TRAFFIC IS ALLOWED TO ENTER THE HIGHWAY EITHER AT PRE-TIMED INTERVALS OR CAN BE DETERMINED BY TRAFFIC VOLUME ON THE RAMP OR ON THE MAIN HIGHWAY. MOTORISTS ON THE RAMPS CAN EXPERIENCE DELAYS DUE TO THE SIGNAL, BUT OVERALL TRAVEL TIME AND SPEED ON THE HIGHWAY IS IMPROVED.



## **INTELLIGENT TRANSPORTATION SYSTEMS**

INTELLIGENT TRANSPORTATION SYSTEMS INCLUDE TECHNOLOGY SUCH AS:

- SYSTEMS CONDITIONS MONITORING
- COMPUTERIZED TRAFFIC CONTROL SYSTEMS
- PUBLIC TRANSIT INFORMATION MANAGEMENT
- TRAVELER INFORMATION SYSTEMS

THE FEDERAL HIGHWAY ADMINISTRATION IS WORKING WITH STATE AND LOCAL TRANSPORTATION AGENCIES TO FACILITATE THE NATIONWIDE DEPLOYMENT OF THE 511 TRAVELER TELEPHONE NUMBER. THE 511 SYSTEM TELLS COMMUTERS THE CURRENT TRAVEL TIME BETWEEN CITIES OR MAJOR LANDMARKS, AND IF THERE ARE ANY INCIDENTS ON THE ROUTE.



## **HIGHWAY INFORMATION SYSTEMS**

INFORMATION SYSTEMS CAN CONSIST OF ONE OR MORE OF THE FOLLOWING:

- CHANGEABLE MESSAGE SIGNS
- HIGHWAY ADVISORY RADIO
- IN-VEHICLE NAVIGATION AND INFORMATION SYSTEMS
- INTERNET

THE INTENT OF THESE INFORMATION SYSTEMS IS TO PROVIDE DYNAMIC INFORMATION REGARDING EXISTING TRAFFIC CONDITIONS SO TRAVELERS CAN MAKE INTELLIGENT ROUTE AND MODE CHOICES.



**IDAHO TRANSPORTATION DEPARTMENT**  
**P.O. Box 7129**  
**BOISE, ID 83707-1129**  
**(208) 334-4444**